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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Woo Seong Yoon

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EXAMINER

ZHAO, DAQUAN

ART UNIT

PAPER NUMBER

2621

NOTIFICATION DATE

DELIVERY MODE

08/04/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/714,434	YOON ET AL.	
	Examiner	Art Unit	
	DAQUAN ZHAO	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,6,8,9,11,15-18,21-28 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,8,9,11,15-18,21-28 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/7/2010; 7/9/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/20/2010 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 5-6, 8-9, 11, 15-18, 21-28, 30-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 9, 11, 15, 18, 23-28, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al (US 2005/0,251,749 A1), and further in view of Saukkonen (US 6,011, 590).

For claim 1, Lamkin et al teach a method for reproducing contents information from an interactive optical disc device, comprising the steps of:

a) receiving contents information from a contents provider server via the internet, storing the received content information in a buffer memory, and synchronizing and reproducing data read from an interactive optical disc and the stored contents information (e.g. abstract and claim 1, "Network sources can provide media content and issue commands which synchronize the playback of both network and readable medium originated content over multiple playback device through the use of the synchronization abilities of the media services);

b) if receipt of the content information from the contents provider server is suspended or delayed, sending a last download position of the contents information in the buffer memory to the contents provider server, and sending a command for requesting re-sending of contents information subsequent to the last download position (e.g. Lamkin et al teach in claim 8 b-1) "if the sending of said contents information from said contents provider server is suspended or delayed, determining whether a size of **contents information downloaded into a buffer memory** of said interactive optical disc device and not reproduced yet is below a predetermined referenced value" and claim 16 of Lamkin et al teach "c-1) Seeking a **position** of data corresponding to said information regarding said specific content information"); and

c) in response to the command for requesting re-sending, receiving the contents information subsequent to the last download position, and synchronizing and reproducing the contents information subsequent to the last download position with the data read from the interactive optical disc (e.g. claims 1 and 3, abstract, "Network sources can provide media content and issue commands which synchronize the

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playback of both network and readable medium originated content over multiple playback device through the use of the synchronization abilities of the media services; paragraph 796, resume playback using the desired bookmark).

Lamkin et al do not further disclose capacity information associated with a storage capacity of the buffer memory is sent to the contents provider server from the device and contents information is received from the contents provider server in response to the capacity information. Saukkonen teaches capacity information associated with a storage capacity of the buffer memory is sent to the contents provider server from the device and contents information is received from the contents provider server in response to the capacity information (e.g. abstract, figure 2, column 3, lines 25-39). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Saukkonen into the teaching of Lamkin et al to ensure the server transfer data to the client device according to the buffer capacity of the client device to avoid error and to improve the robustness of the system.

Claim 31 is rejected for the same reasons as discussed in claim 1 above, wherein Lamkin et al teach a receiving portion to receive content information form a content provider server via an Internet (e.g. figures 3 and 14); a buffer memory configured to stored received content information (e.g. memory 306); a reproducing portion configured to reproduce data read from an interactive optical disc and the store content information (e.g. figure 6, DVD device content to the internet); a controller configured to control the reproducing portion to synchronously reproduce data read from

an interactive optical disc and the stored contents information (e.g. abstract and paragraph 28).

For claim 6, Lamkin et al teach a method for reproducing contents information from an interactive optical disc device, comprising the steps of:

a) receiving contents information from a contents provider server via the internet, storing the received contents information in a buffer memory, and synchronizing and reproducing data read from an interactive optical disc and the stored contents information (e.g. abstract, paragraph 41, and claim 1, "Network sources can provide media content and issue commands which synchronize the playback of both network and readable medium originated content over multiple playback device through the use of the synchronization abilities of the media services);

b) if receipt of the contents information from the content provider server into the buffer memory is suspended or delayed and if a size of the contents information downloaded into the buffer memory and not reproduced yet is below a predetermined reference value, automatically pausing a data reproducing operation of the interactive optical disc for a predetermined period of time and, after the predetermined period of time, determining whether there is content information received over the internet (e.g. see claim 8, "automatically pausing the data reproduction operation of said interactive disc", Pausing has to be done temporarily)and

c) if there is contents information received over the internet after the predetermined period of time, re-synchronizing the reproducing subsequently received contents information and data read from the interactive optical disc (e.g. claim 11, re-

synchronizing has to be done after the predetermined period of time of pausing and new data has to be received in order for re-synchronizing to happen).

For claim 11, Lamkin et al teach a method for reproducing contents information from an interactive optical disc device, comprising the steps of:

a) receiving contents information from a contents provider server via the Internet, storing the received contents information in a buffer memory, synchronizing and reproducing data read from an interactive optical disc and the stored contents information, and counting synchronizations between the data read from the interactive optical disc and the stored contents information (e.g. abstract, 41, and claim 1, "Network sources can provide media content and issue commands which synchronize the playback of both network and readable medium originated content over multiple playback device through the use of the synchronization abilities of the media services);

b) if receipt of the contents information from the contents provider server is suspended or delayed, estimating a number of missed synchronizations during a corresponding suspension or delay period based on the counted synchronizations, and sending a command for requesting re-sending of contents information corresponding to the estimated number of missed synchronizations (e.g. claims 1, 2, 3 and 4); and

c) in response to the command for requesting re-sending, receiving the contents information subsequent to the estimated number of missed synchronizations, and synchronizing and reproducing the contents information subsequent to the estimated

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number of missed synchronizations with the data read from the interactive optical disc (e.g. claim 18, offset information).

For claim 18 lamkin et al teach a method for reproducing contents information from an interactive optical disc device, comprising the steps of:

a) receiving contents information from a contents provider server via the Internet, storing the received contents information in a buffer memory, synchronizing and reproducing data read from an interactive optical disc and the stored contents information, and calculating an offset between data read from the interactive optical disc and contents information received from the contents provider (e.g. abstract, 41, and claim 1, "Network sources can provide media content and issue commands which synchronize the playback of both network and readable medium originated content over multiple playback device through the use of the synchronization abilities of the media services);

b) if receipt of the contents information from the contents provider server is suspended or delayed, sending a command for requesting re-sending of contents information and the offset to the contents provider server (e.g. claim 17); and

c) in response to the command for requesting re-sending, receiving the contents information corresponding to the offset, and synchronizing and reproducing the contents information corresponding to the offset with the data read from the interactive optical disc (e.g. claim 17).

For claim 27, Lamkim et al teach a method for providing contents information from a contents provider server, comprising the steps of:

a) sending contents information from the contents provider server via the Internet to a buffer memory of an interactive optical disc device (e.g. abstract, 41, and claim 1, “Network sources can provide media content and issue commands which synchronize the playback of both network and readable medium originated content over multiple playback device through the use of the synchronization abilities of the media services);

b) receiving an indication that receipt of the contents information by the buffer memory is suspended or delayed, the indication including a command for requesting re-sending of contents information subsequent to a suspension or delay point (e.g. claim 17); and

c) in response to the command for requesting re-sending, sending the contents information subsequent to the suspension or delay point, the indication including one of a last download position of the contents information in the buffer memory, information corresponding to an estimated number of missed synchronizations during a corresponding suspension or delay period, the estimated number of missed synchronizations based on a number of counted synchronizations, and an offset between data read from the interactive optical disc by the interactive optical disc device and contents information received from the contents provider by the interactive optical disc device (e.g. claim 18).

For claims 23- 26 and 28, Lamkin et al teach contents information sent from said contents provider server is audio data, and said data read from said interactive optical disc includes video data (e.g. claim 23 of Lamkin et al).

For claim 15, Lamkin et al teach estimating the number of missed synchronization with reference to a bandwidth of a current network bit rate (e.g. claim 4 of Lamkin et al).

For claim 9, Lamkin et al teach resuming the paused data reproducing operation of the interactive optical disc if there is no contents information received over the internet after the predetermined time period has elapsed (e.g. paragraph 449, resumes playback, pause is off, paragraph 506, resume playback interrupted by a menu call. Therefore, no contents information received over the internet during the menu call).

4. Claims 5, 16, 22, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al (US 2005/0,251,749 A1) and Saukkone (US 6,011,590), as applied to claims 1, 6, 11, 15, 18, 23-28, 31 and further in view of Horowitz et al (7,136,394 B2).

See the teaching of Lamkin et al and Saukkone (US 6,011,590) above.

For claims 5,16, 22, 30 and 32, Lamkin et al and Saukkone fail to teach sending an acknowledgement of the command for requesting re-sending. Horowitz et al teach sending an acknowledgement of the command for requesting re-sending (e.g. column 1, lines 37-45). It would have been obvious to one ordinary skill in the art at the time the

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invention was made to incorporate the teaching of Horowitz et al into the teaching of Lamkin et al and Saukkonen to minimize packet losses.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al (US 2005/0,251,749 A1) and Saukkonen (US 6,011,590), as applied to claims 1, 6, 911, 15, 18, 23-28, 31 and further in view of Kleiman et al (US 7,200,715 B2).

See the teaching of Lamkin et al and Saukkonen above.

For claim 8, Lamkin et al and Saukkonen fail to teach delaying the re-synchronizing and reproducing until the size of contents information in the buffer memory and not reproduced yet becomes greater than or equal to the predetermined reference value. Kleiman et al teach delaying the re-synchronizing and reproducing until the size of contents information in the buffer memory and not reproduced yet becomes greater than or equal to the predetermined reference value (e.g. figure 4, column 10, lines 39-54, the data can include data that fills only a portion of block for mirror resynchronization, figure 4 shows “sufficient data for an optimal write transaction”). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kleiman et al into the teaching of Lamkin et al and Saukkonen to wait to have sufficient data in the buffer memory for an optimal data transaction.

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6. Claims 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al (US 2005/0,251,749 A1), Saukkonen(US 6,011,590) and Horowitz et al (7,136,394 B2)., as applied to claims 1, 6, 11, 15, 18, 23-28, 5, 16, 22 and 30 and further in view of Duso et al (US 6,625,750).

See the teaching of Lamkin et al, Saukkonen and Horowitz et al above.

For claims 17 and 21, Lamkin et al, Saukkonen and Horowitz et al fail to teach discard content information. Duso et al teach discard content information (e.g. column 50, lines 22-34, discard any duplicate response from the video file server). It would have been obvious to one ordinary skill in the art at the time the invention was made to discard content information before the acknowledgement to create more available memory space.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daquan Zhao/

Examiner, Art Unit 2621

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621